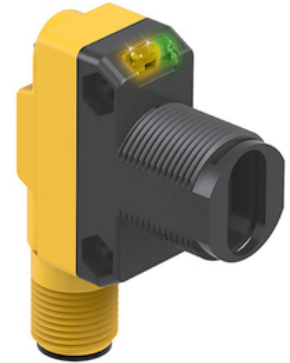
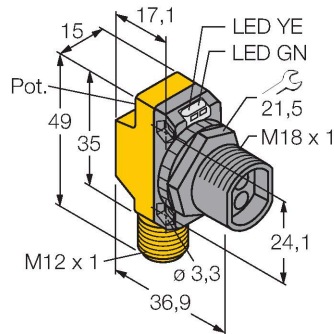


# QS18VP6FQ8

## Photoelectric Sensor – Photoelectric Sensor for Glass Fibers



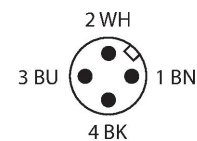
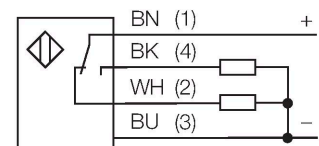
### Technical data

|                              |                                 |
|------------------------------|---------------------------------|
| Type                         | QS18VP6FQ8                      |
| ID                           | 3071778                         |
| <b>Optical data</b>          |                                 |
| Function                     | Fiber optic sensor              |
| Operating mode               | Glass fiber                     |
| Fiber-optic type             | glass                           |
| Light type                   | IR                              |
| Wavelength                   | 940 nm                          |
| <b>Electrical data</b>       |                                 |
| Operating voltage            | 10...30 VDC                     |
| Residual ripple              | < 10 % U <sub>ss</sub>          |
| DC rated operational current | ≤ 100 mA                        |
| Short-circuit protection     | yes                             |
| Reverse polarity protection  | yes                             |
| Output function              | NO/NC, PNP                      |
| Current output               | 100 mA                          |
| Switching frequency          | ≤ 800 Hz                        |
| Readiness delay              | ≤ 100 ms                        |
| Response time typical        | < 0.6 ms                        |
| Setting option               | Potentiometer                   |
| <b>Mechanical data</b>       |                                 |
| Design                       | Rectangular with thread, QS18   |
| Dimensions                   | 36.9 x 15 x 49 mm               |
| Housing material             | Plastic, Thermoplastic material |
| Electrical connection        | Connector, M12 × 1, PVC         |
| Number of cores              | 4                               |
| Ambient temperature          | -20...+70 °C                    |

### Features

- M12 × 1 male, 4-pin
- Protection class IP67
- LED all-round visible
- Sensitivity adjusted via potentiometer
- Operating voltage: 10...30 VDC
- PNP switching output, changeover

### Wiring diagram



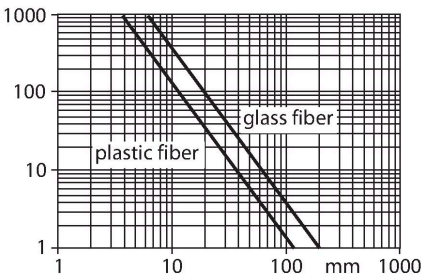
### Functional principle

Glass or plastic fibers are the optimum choice for high-temperature applications and narrow spaces. Fiber optics transfer the light from the sensor to a remote object. Individual fibers are used for opposed mode sensing, whereas bifurcated fibers are suited for retroreflective or diffuse mode sensing.

Excess gain curve  
Excess gain in relation to the distance for opposed mode sensor (glass fibers IT23S and plastic fibers PIT46U)

Technical data

|                        |                                           |
|------------------------|-------------------------------------------|
| Relative humidity      | 0...95 %                                  |
| Protection class       | IP67                                      |
| Special features       | Wash down                                 |
| Power-on indication    | LED, Green                                |
| Switching state        | LED, Yellow                               |
| Error indication       | LED, green, Flashing                      |
| Excess gain indication | LED, yellow, flashing                     |
| Tests/approvals        |                                           |
| MTTF                   | 965 years acc. to SN 29500 (Ed. 99) 40 °C |
| Approvals              | CE, cURus                                 |



Accessories

SMB18A3033200

Mounting bracket, rectangular, stainless steel, for sensors with 18 mm thread

SMB18AFAM103012558

Mounting bracket, material VA 1.4401, for M10 x 1.5 thread, thread length 18 mm

SMBQS18A3069721

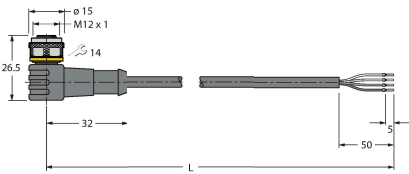
Mounting bracket, stainless steel, for 18 mm thread

SMB18SF3052519

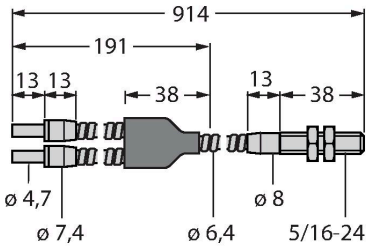
Mounting bracket, PBT black, for sensors with 18 mm thread, rotatable

Accessories

| Dimension drawing    | Type          | ID      |                                                                                                                                                                                                                  |
|----------------------|---------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>RKC4.4T-2/TEL</p> | RKC4.4T-2/TEL | 6625013 | Connection cable, female M12, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a> |

| Dimension drawing                                                                 | Type          | ID      |                                                                                                                                                                                                                |
|-----------------------------------------------------------------------------------|---------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | WKC4.4T-2/TEL | 6625025 | Connection cable, female M12, angled, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a> |

Accessories

| Dimension drawing                                                                 | Type  | ID      |                                                                                                                                                                |
|-----------------------------------------------------------------------------------|-------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | BT23S | 3017276 | Glass fiber, sensing mode: Diffuse mode, threaded sleeve (brass), bundle diameter 3.2 mm, flexible stainless steel jacket, ambient temperatures -140...+250 °C |

|       |         |                                                                                                                                                                |
|-------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IT23S | 3017355 | Glass fiber, sensing mode: Opposed mode, threaded sleeve (brass), bundle diameter 3.2 mm, flexible stainless steel jacket, ambient temperatures -140...+250 °C |
|-------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|

